

## 13. Intangible assets and Goodwill

### Gross margin :

Illustrates all cost of goods sold related factors and incorporates among others, the evolution of energy cost. The Group has assumed the following gross margin compound annual growth rates for the five year period:

Gross margin Growth	2016	2015
Greece and Western Europe	2,9% - 25,4%	6,2% - 59,6%
North America	5,6% - 12,4%	12,3% - 18,8%
South Eastern Europe	9,5% - 16,6%	11,6% - 24,5%
Eastern Mediterranean	23,7%	28,2%

### Perpetual growth rates:

Factors that have been taken into consideration are estimates from the local Central Banks in the countries where the Group operates relating to the growth of the local economies over the next years along with the co-relation that exists between the growth of the economy and that of the construction sector.

Perpetual Growth rates	2016	2015
Greece and Western Europe	3%	3%
North America	2% - 4%	3% - 3,5%
South Eastern Europe	2%	2%
Eastern Mediterranean	3,5%	3,5%

### Discount rates:

Discount rates represent the current market assessment of the risks specific to each CGU, taking into consideration the time value of money and individual risks of the underlying assets that have not been incorporated in the cash flow estimates. The discount rate calculation is based on the specific circumstances of the Group and its operating segments and is derived from its weighted average cost of capital (WACC). The WACC takes into account both debt and equity. The cost of equity is derived from the expected return on investment by the Group's investors. The cost of debt is based on the interest bearing borrowings the Group is obliged to service. Country-specific risk is incorporated by applying individual beta factors. The beta factors are evaluated annually based on publicly available market data.

Discount rates	2016	2015
Greece and Western Europe	9,5%	11,6%
North America	4,7% - 5,6%	7,9%
South Eastern Europe	4,8% - 15,4%	6,4%-15,4%
Eastern Mediterranean	17,7%	16,5%

## Sensitivity of recoverable amounts

On 31 December 2016, the Group analyzed the sensitivities of the recoverable amounts of each CGU to a reasonable possible change of a key assumption (notably to a change of one point in the discount rate or the perpetual growth rate).

## Impairment of Goodwill

In Greece, a significant reduction in demand of construction materials due to the persisting economic recession led to the reduced revenues compared to the last year forecasts. As a result, the Group recorded an impairment loss of €2.5 million (2015: €4.0 million) on the goodwill, based on the respective value in use as calculated using a discount rate of 9.5% (2015: 11.6%).

In South Eastern Europe, the significant decrease of a terminal's commercial viability resulted in the recognition of an impairment loss of €2.8 million. The calculation of value in use was based on a discount rate of 8.2%.